

Roundabouts and Utilities

Craig Parks, PE
Natalie Parks, PE

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100th ANNUAL
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ROAD SCHOOL



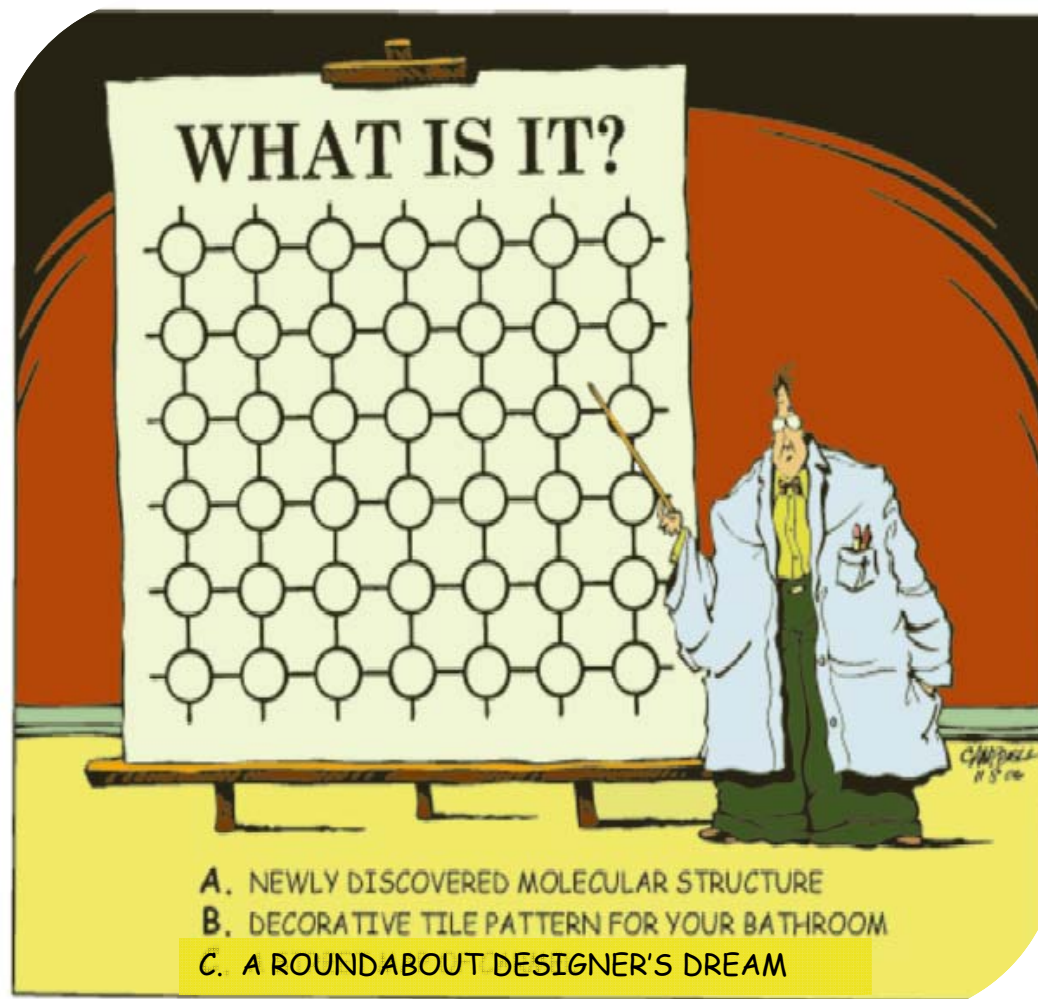
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Roundabouts vs Utilities?

- INDOT desires roundabouts to be considered for any intersection improvement project
- A New Paradigm for Utility Coordination

Roundabouts vs Utilities?



Roundabouts vs Utilities?



A UTILITY COORDINATOR'S DREAM!

Roundabouts vs Utilities?

Survey....

Roundabouts & Utilities

Just because we are changing the way we do things doesn't mean we change the way we do things!

Roundabout Myths

- Take more space (R/W)
- Cause more impact
- Just a fad
- Always cause more disruption to utilities

Roundabout Truths

- Safer intersection
- Here to stay
- Flexibility in design
- Right of way is different
- Can co-exist with utilities
- Can make utility avoidance easier

Utility Myths

- It's easier for utilities to adjust their facilities around our design.
- It is cheaper for utilities to move out of our way.
- It is public right-of-way, they have to move if we tell them to.

Utilities Truths

- Utilities not always as flexible as we think
- Often need straight lines
- Desirable to be outside of pavement
- Must be able to maintain their facility

Utility Coordination

- “Old way”
 - Utilities move
 - Little coordination
- New Paradigm
 - Work with utility partners
 - Everyone knows where everyone goes
 - Coordinate early and often

Using the New Paradigm

- Coordination begins at the beginning of the project
- Work with utilities when setting right-of-way
- Working with utilities with recorded easements

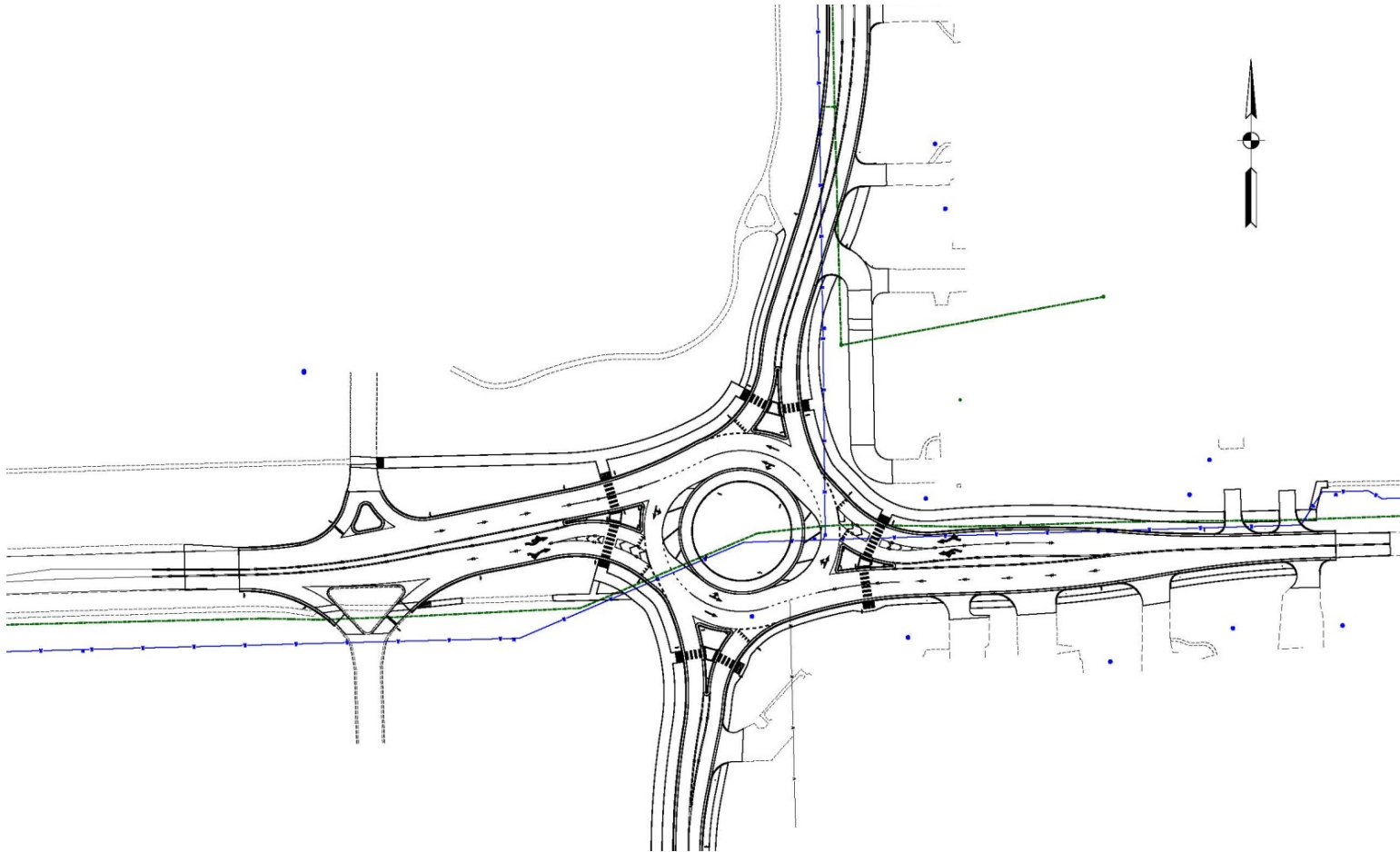
Working with Utility Partners

- Understand utility limitations
- Understand easement rights
- Understand reasonable vs. unreasonable
- Mitigate impacts as much as possible

Underground Utilities

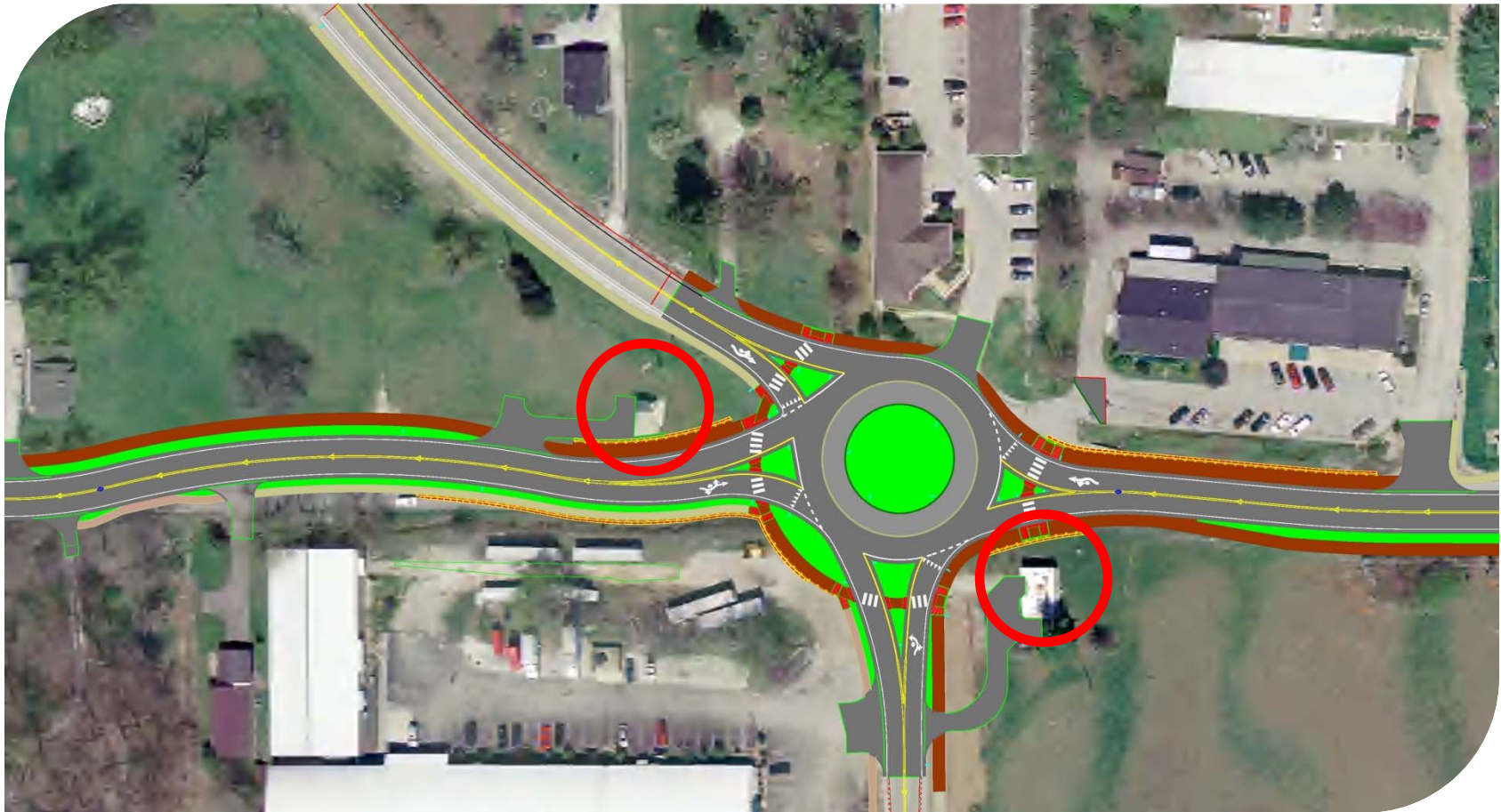
- Straight lines are best
- Can't always lengthen run and go around intersection
- Go through roundabout?
- How do grades within roundabout affect them?

Roundabout Flexibility



CR 100N & 1050 E, Avon, IN

Roundabout Flexibility

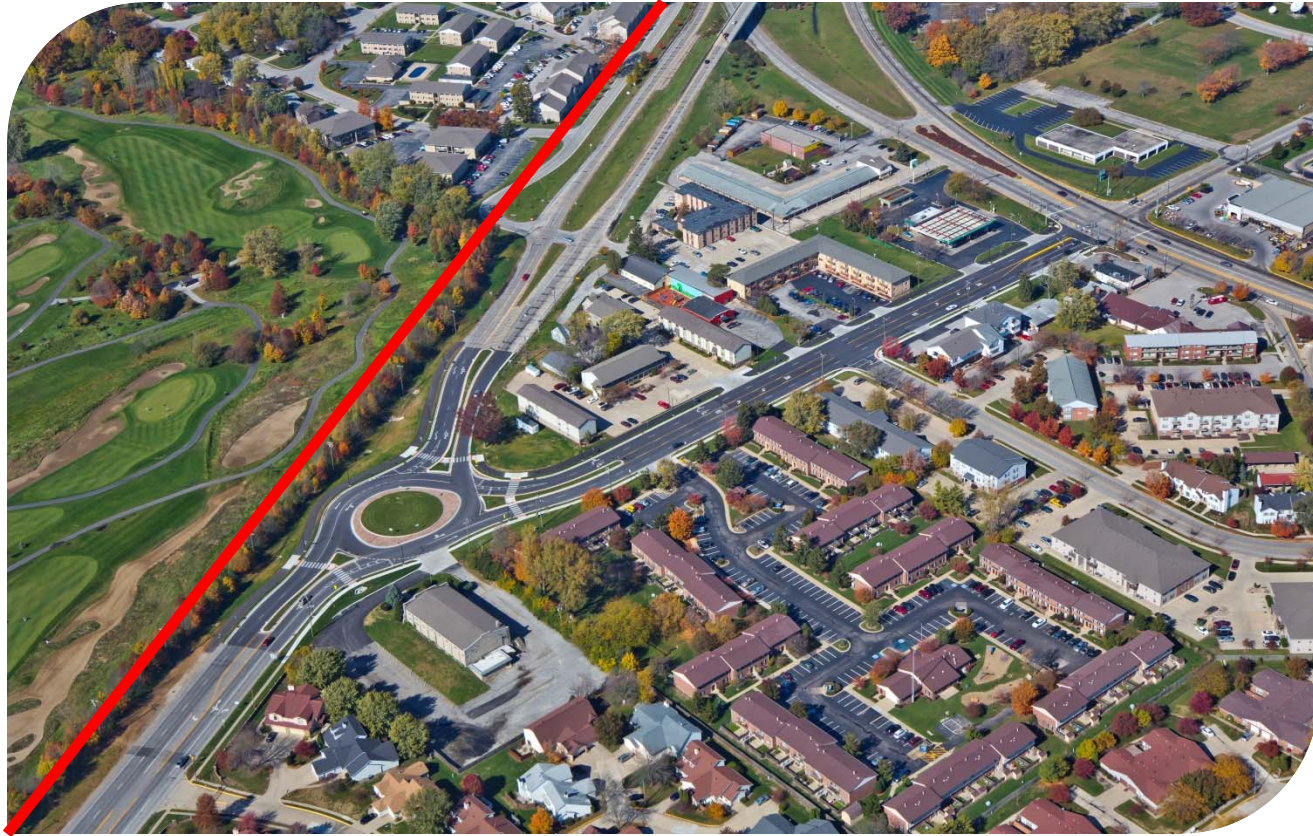


17th & Arlington, Bloomington, IN

Overhead Utilities

- Much more difficult to make turns
- Flexibility of roundabout design may allow designers to avoid
- Roundabouts more forgiving than other intersections

Roundabout Flexibility



Northwestern & Yeager, W. Lafayette, IN

Overhead Utilities

- When no other option exists...



Cumberland & Yeager, W. Lafayette, IN



Cumberland & Manchester, W. Lafayette, IN

Working with Utility Partners

- Federal Aid/INDOT: follow IAC 13
- Locally funded projects – consider following IAC 13 if possible
- Provide plans in timely manner and update regularly

Using the New Paradigm - Planning

- Consider optional locations for roundabout
- Consider critical (and difficult) utilities
- Consider impacts to existing, exclusive easements
- Consider impacts to schedule
- Consider impacts to right of way

When Relocations are Necessary

For Overhead Utilities:

- Go Around roundabout
- Span one leg if possible



106th Street & Springmill Road, Carmel, IN

When Relocations are Necessary

For Overhead Utilities:

- Go Around roundabout
- Span one leg if possible
- Consider effects on drainage
- “Everybody knows where everybody goes!”

When Relocations are Necessary

For Underground Utilities:

- Best practice - Go around roundabout
- Option – Under Circulatory Roadway

Roundabouts and Utilities

Always Consider:

- How do you construct?
- Grades within roundabout
- Grades outside of roundabout (corners)
- Storm sewer conflicts
- Long term maintenance
 - How will it affect traffic?
 - Place manholes in inside lane or truck apron

Questions?

